

**Claims**

1. Method for changing the crest factor of a discrete-time signal which is formed from temporally consecutive  
5 signal values of a signal vector, in which method, as a function of the signal vector, at least one correction vector is calculated and added to the signal vector, wherein the signal described by the signal vector is first filtered and then, as a function of the filtered signal  
10 vector, at least one correction vector is calculated and added to the filtered signal vector.
2. Method according to claim 1, wherein the signal described by the signal vector is high-pass filtered and/or  
15 low-pass filtered.
3. Method according to claim 1, wherein the signal is a carrier of data, all spectral components of the data lying below the sampling frequency of the signal divided by  
20  $2^{(N+1)}$ , wherein the signal values of the signal vector after filtering are divided over  $2^N$  part signal vectors in a cyclically alternating manner and for each part signal vector at least one correction vector is calculated independently from the respective part signal vector and  
25 added to the respective part signal vector, and then the elements of the part signal vectors are combined in a cyclically alternating manner into an output signal vector, where N is integral and  $\geq 1$ .
- 30 4. Method according to claim 3, wherein  $N = 1$ .





15. Method according to claim 1, wherein the method for data transmission via telephone lines is used according to the ADSL standard.

5

16. Device for changing the crest factor of a discrete-time signal which is formed from temporally consecutive signal values of a signal vector, wherein the device is set up in such a way that, as a function of the signal vector  
10 at least one correction vector is calculated and added to the signal vector, wherein the device is set up in such a way that the signal described by the signal vector is first filtered and then at least one correction value is  
15 is added to the signal vector.

17. Device according to claim 16, wherein the device is set up to carry out a method according to any one of claims 1 to 15.

20

18. Device according to claim 16, wherein the device is a signal processor.